ANDREA BEATTY RINIKER
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
3601 West Washington • Yakima, Washington 98903-1164 • (509) 575-2800

January 22, 1987

YPLSF
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Mr. Charles Rice, Chief - M/S 533
RCRA Compliance Section
Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101

RE: Yakima Agricultural Research Laboratory Closure Plan

Dear Mr. Rice:

Enclosed please find the most recent copy of the Yakima Agricultural Research Lab (YARL) Closure Plan. This plan was revised and resubmitted by YARL in response to Denis Erickson's comments of December 24, 1986 (see attached memorandum).

Thank you for sending me a copy of the draft report prepared by the EPA contractor, PRC, outlining their review of the closure plan. The copy of the report I received is dated October 3, 1986. From what Andy Boyd told me, preparation of this report was assigned to PRC by Jim Pankanin following his RCRA inspection of the YARL facility in May, 1986.

I have just finished reading over the list of regulatory deficiencies and comments on the groundwater monitoring and soil sampling programs. Several of these comments are valid while others do not apply to the YARL facility. We will modify the plan to include those comments that are appropriate.

In order to meet our Facility Management Plan (FMP) commitments, we need to issue public notice of our intent to approve the closure plan, with the modifications discussed above, by February 16, 1987. If we do not receive your comments in time to incorporate them into the plan prior to public notice, we will consider them as part of the 45-day public comment period.

It is our understanding that Jim Pankanin is completing the write-up for his May 22, 1986 inspection of the YARL facility and will also be coordinating the comments from RCRA and Superfund on the enclosed closure plan.

If you have any questions or comments, please do not hesitate to call me at (509) 575-2490.

Sincerely,

Kimberly E. Anderson

Kimberly E. Anderson
Environmental Quality Division

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Enclosures: YARL Closure Plan dated January 12, 1987
WDOE interoffice memorandum dated December 24, 1986

cc: Lori Cohen, EPA
(with enclosures)
Tim Nord, Ecology

MEMORANDUM

December 24, 1986

TO: Tim Anderson

FROM: Denis Erickson DE
Hydrogeologist

SUBJECT: Review Comments on Ground Water Portion of the Closure Plan for the Yakima Agriculture Research Laboratory
WAD 120513957

I have reviewed the ground water portions of the ammended closure plan for the Yakima Agriculture Research Laboratory. The cover letter for the closure plan is dated December 17, 1985. The plan was received by me for review December 11, 1986. As a point of clarification this is the first time that I have been able to review the plan. My previous input was limited to a telephone conversation with Dom Reale in which we discussed some conceptual approaches to ground water monitoring.

In general the plan looks good. I have a few detailed comments that should be addressed when the plan is implemented. These comments are listed as follows:

1. The location of the upgradient well is too far away from the grouping of downgradient wells to accurately define the ground water flow direction at the drainfield. If possible the upgradient well should be moved closer to the drainfield. I have not been to the site so I am not familiar with the access limitations. Ideally the well would be located upgradient from the drainfield a sufficient distance, say 50 feet, so that it would be unaffected by the regulated unit. This would allow better triangulation conditons to define the ground water flow direction.
2. The plan refers to using a commercial well driller to install the monitoring wells. I suggest that the facility try to use a commercial well driller experienced with installing monitoring wells.
3. I have two comments on the proposed well construction:
    a. The monitoring well design should be based on the site specific hydrogeology observed during the drilling. If hydrogeologic barriers are observed during drilling then well seals should appropriately installed to prevent cross-contamination of water-bearing zones. My main concern is the use of "clean backfill" in the annular space rather than sealant material such as a grout/bentonite mixture. Also depending on the permeability contrast of the "clean backfill" and the surrounding water-bearing zones the "clean backfill" approach may not accurately define

vertical hydraulic gradients.
b. Ecology's preferred approach for installing multiple well completions (well nests) is to install each well in a separate borehole. This eliminates the possibility of cross-contamination between the wells.

4. The plan states that the sampling pump is "dedicated". This implies that a separate pump will be installed in each well during the duration of the monitoring program. Yet, in other parts of the plan, the decontamination of the pump is described. Ecology prefers the use of dedicated pumps. If, however, the pump is to be moved and decontaminated between wells, one transfer blank should be obtained each sampling event.

5. It is not clear from the plan (page 6) which parameters are to receive quadruplicate tests the first sampling event. Also, since pH and specific conductance are to be measured in the field using calibrated meters I suggest that quadruplicate tests be conducted on these parameters on separate aliquots obtained during the sampling. This will help to define the natural variance of this parameters at little or no extra cost.

I think that one thing you should emphasize with the facility is that it is a rare occurrence that a facility can install an adequate ground water monitoring network in one step. After the first sampling event and water levels are obtained Ecology should review the data to ensure that the wells are correctly placed.
Thank you for the opportunity to comment on the plan and good luck with your project.